

ABSTRACT OF THE DISCLOSURE

A computer-implemented solid modeling system provides a graph-based method that sculpts solids with sheet bodies by performing a selective Boolean operation on a part body and one or more sheet bodies, wherein faces of the sheet bodies separate the
5 part body into regions of space such that the regions are separated from each other by the faces of the sheet bodies. Cells thus formed are selected for inclusion or exclusion in the resulting solid as is specified by an option ("join" or "cut").

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Adriane M. Baird
(printed name)

Adriane M. Baird
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